



**PUBLIC WORKS BUSINESS CENTER  
FORT BRAGG, NORTH CAROLINA**

# **FORT BRAGG LESSONS LEARNED**

**XVIII AIRBORNE CORPS**

# LESSON LEARNED—START WITH AND NURTURE A GOOD TEAM

## REAL PROPERTY PLANNING TEAM

**Talented Team With A Great Mix Of Skills:**

- Master Planning
- Construction Programming
- Space Management
- Demolition Planning
- Real Property Accounting/  
Requirements Accounting (RPLANS)
- Real Estate

- Ron Allen
- Zita Barrett
- Camille Cole
- Donnie Douglas
- Kathryn Haught
- Dewana Kennedy
- Lance Locklear
- Jennifer Weaver
- CPT Mitchell
- Paul Strickland

**One Of The First Places In Army To Combine Master Planning and Real Property Into A Single Team (Has Worked Great For 15+ Years)**

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# REAL PROPERTY PLANNING TEAM

Savannah District,  
Installation Support  
Manager, And  
Area Office

Can't Do Anything  
Without Support Of  
Whole PWBC Team:

- Utility Experts/  
Maintenance
- Environmental
- Business Office
- Housing

Command Group  
Support

FORSCOM

ACSIM

THE TEAM IS MORE THAN JUST THE INSTALLATION. . .  
ALL THESE PLAYERS HAVE TO BUY INTO THE VISION.

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**If You Don't Have A Good, Well Thought Out Plan,  
No One Is Going To Give You Any Money.**

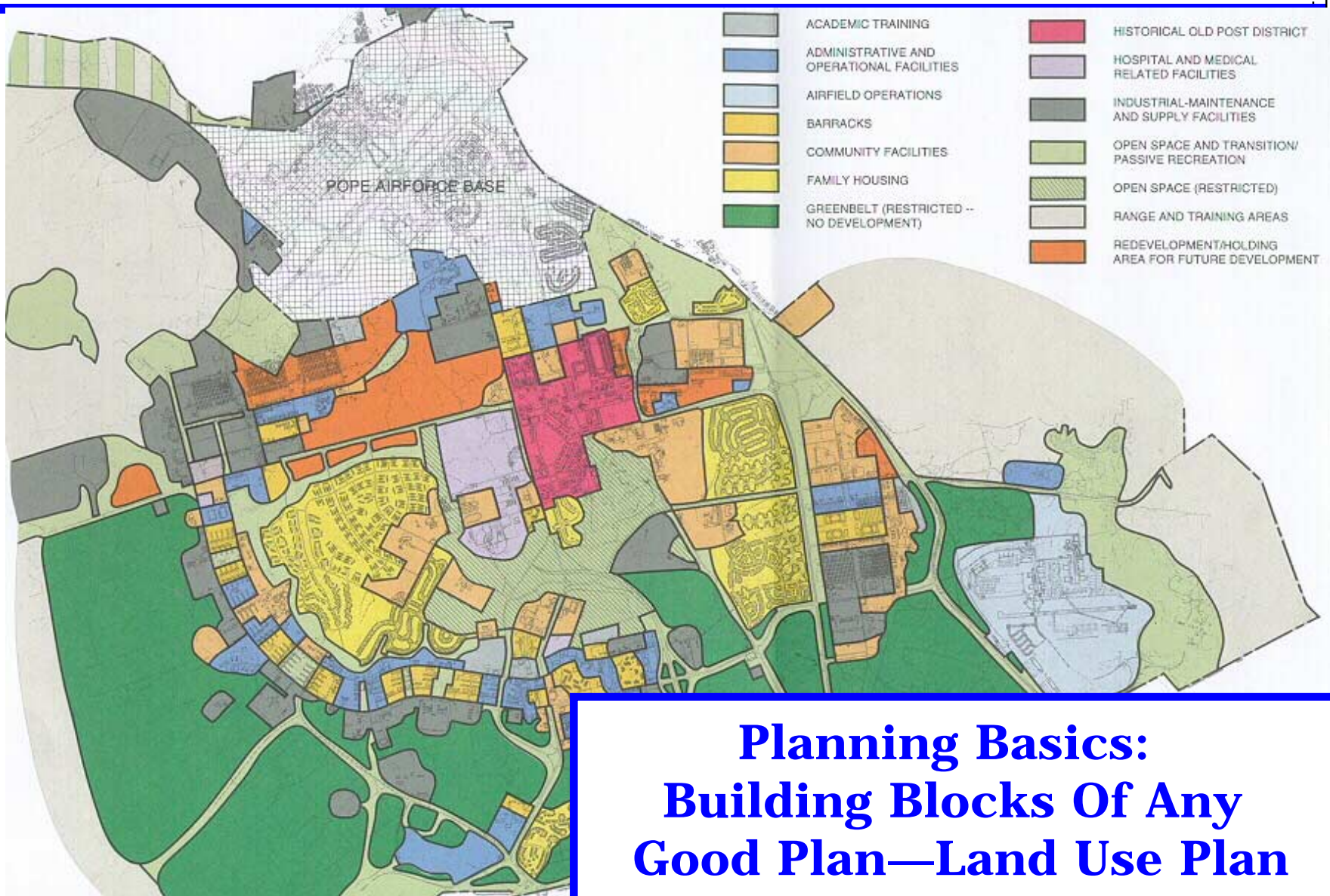
**Planning Basics:  
Skeleton Of Any Good  
Plan—Transportation  
Plan**

**LESSON  
LEARNED:**

**START WITH  
A GOOD PLAN  
AND BUILD  
ON IT.**

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**LESSON LEARNED:  
DEVELOP A GOOD IDG  
AND STICK TO IT**

**BUILDING  
NUMBER  
PREFIX MAP**

**LEGEND**

-  Old Post
-  Ring
-  Division
-  Green Ramp
-  Vaughn Hill
-  Smoke Bomb Hill
-  South
-  East
-  Airfield
-  Industrial
-  Housing
-  Prefix Boundary
-  District Boundary

Plate 1 of 17



SCALE IN FEET



INSTALLATION DESIGN GUIDE  
FORT BRAGG, NORTH CAROLINA

**Installation Design Guide—11 Districts  
Provides Architectural Vision For Your Installation**

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**IDG On Web—Easy To Update**

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**Youth Activities Center:  
\$7 Million--63,000 SF (May 99)**



**Sports Bar: \$4.7 Million  
24,000 SF (Sep 99)**

**Two Very Different Facilities—Both Adhere  
To IDG Standards For The Ring District. The  
Ring District Encircles The Old Main Post  
Historic District.**

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**LESSON LEARNED: PLANNING WITH  
A RESPECT FOR THE PAST. UNDER-  
STAND WHAT'S UNIQUE ABOUT YOUR  
POST AND CAPITALIZE ON IT.**

**Symmetry**



**Axes**

**Planning--Historic Beaux-Arts Principles Used On Old Main Post On Fort Bragg.  
Washington, D.C. Mall Uses Similar Planning Principles.**

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WASHINGTON, D.C. MALL

**XVIII AIRBORNE CORPS**



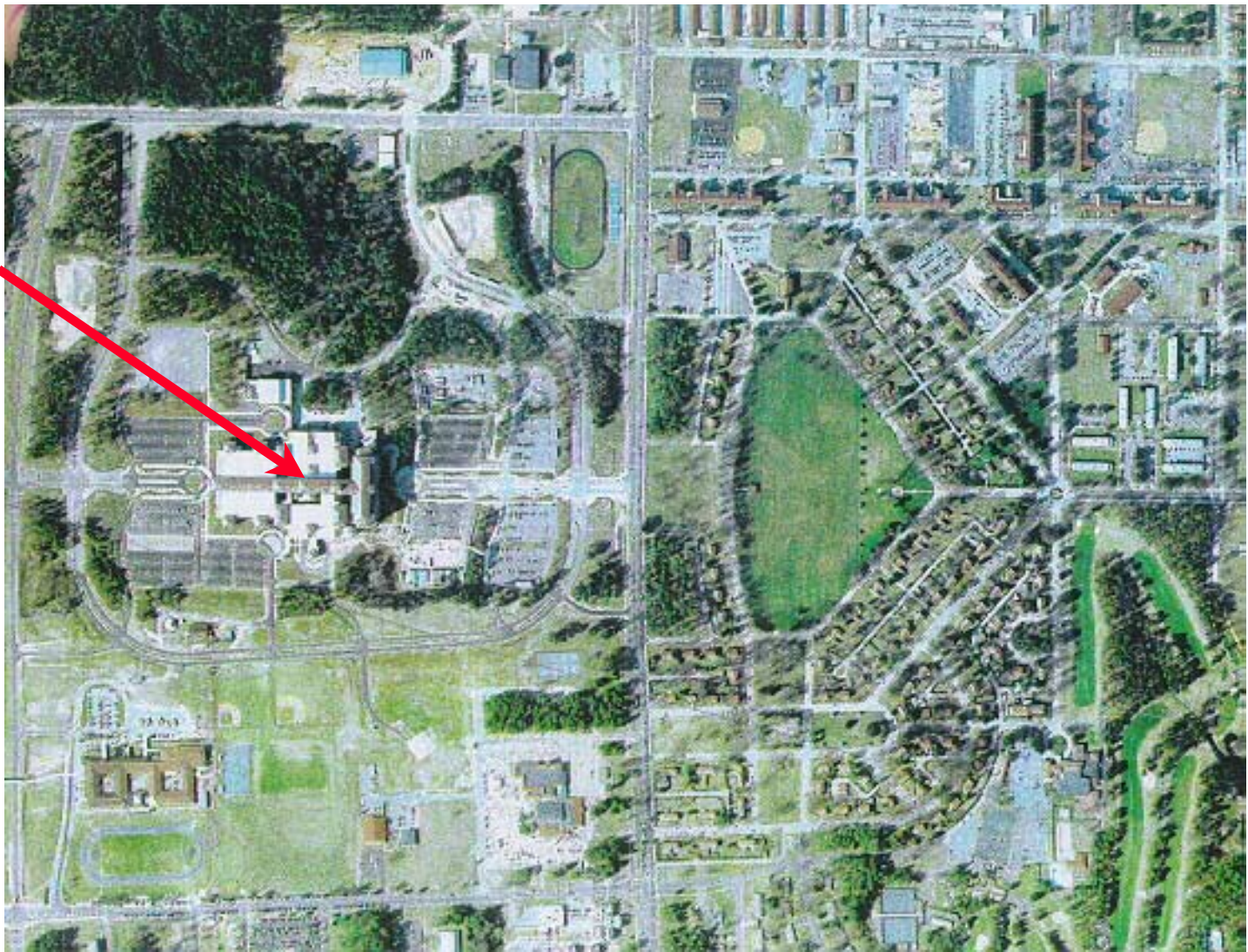


**FORT BRAGG'S MAIN POST CHAPEL  
LOCATED ON THE CROSS-AXIS**

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**NEW  
MEDICAL  
CENTER**



**USING HISTORIC PRINCIPLES IN PRESENT DAY PLANNING**

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**NEW MEDICAL CENTER ON BRAGG IS ON PERFECT ALIGNMENT  
WITH STATUE OF IRON MIKE, MAIN POST  
FLAGPOLE AND MAIN POST PARADE FIELD.**

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**NOTE HOW MAIN POST FLAGPOLE AND RANDOLPH STREET (FOREGROUND) LINE UP PERFECTLY WITH THE TOWER OF THE NEW MEDICAL CENTER (BACKGROUND)**

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# Adapting Historic Planning Ideas For Our New Barracks Complexes:



1920s-1930s Layout Of  
Old Main Post



Faith Barracks Complex--\$72  
Million. Complete Jan 98.

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Faith Barracks—View Across Green Space To Barracks

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Faith Barracks--View Approaching Barracks Courtyard

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**Faith Barracks--View From Barracks To Battalion HQs**

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# **LESSON LEARNED: TO RESPOND QUICKLY AND BE COMPETITIVE FOR MONEY, INSTALLATIONS MUST HAVE STAFF/ CAPABILITY TO DO MASTER PLANNING IN HOUSE**

## **EXAMPLES:**

- **FORSCOM And ACSIM Requested Plan For Buying Out Our 13,853 Barracks Spaces. There Was No Time Or Money For Hiring Planning Firm.**
- **Doing Plan Now For Maint Shops**
- **The Green Belt Plan**



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# STRATEGY 1:

OMA Upgrades Of LBC&W Barracks (Complete), Grant And Baker Halls (Under Construction), And "2+2" Barracks (FY 2006).

LBC&W BARRACKS



Construction Complete Nov 00

BAKER HALL--EXISTING



Construction Started 29 Aug 00



BAKER HALL--RENOVATION

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**Renovation of 1970's Vintage Barracks. Total Cost—Over \$40 Million**



**Location Of LBC&W Barracks—19 Barracks Buildings (2,888 Spaces)**



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# **STRATEGY 2:**

## **MCA RENOVATIONS OF ROLLING PIN TYPE BARRACKS**



**LOCATION OF ROLLING PIN BARRACKS IN  
THE CORPS ARTILLERY AREA OF FORT BRAGG**

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## Rebuilding 1960's Vintage Barracks



After Upgrade, Barracks, Fort Hood, TX

**LESSON  
LEARNED:  
STEAL  
GOOD  
IDEAS BUT  
MAKE  
THEM  
YOUR OWN**



**Construction Complete  
Cost--\$9.4 Million (FY 98 MCA)**

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**Two More In FY 99 Cost-\$10.8 Million  
Move In Feb 2002**

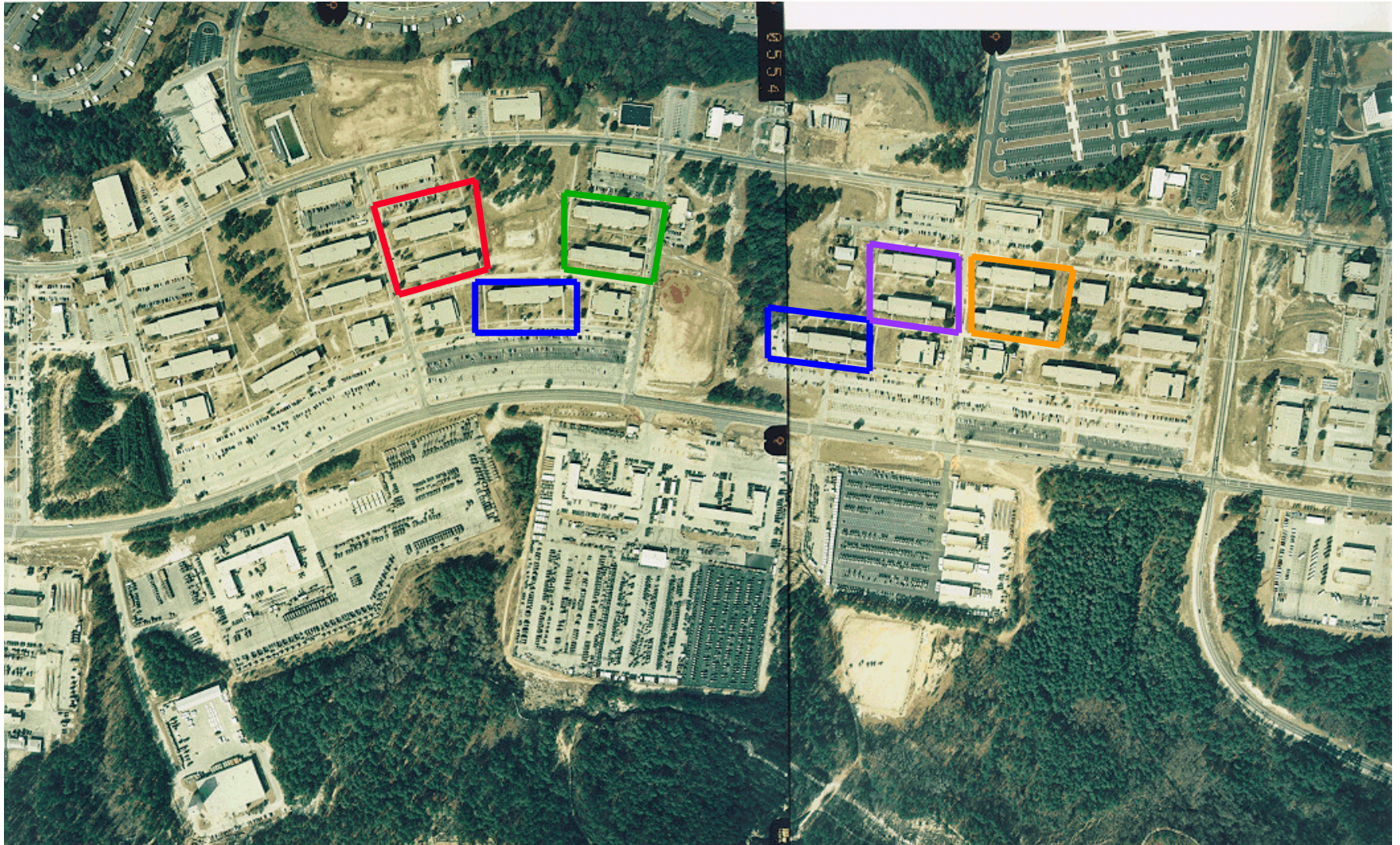


**Soldier Community Building  
Congress Approved \$14.4 MILLION For  
Construction In FY 2000. Begins May 2001.**



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FY 98 — FY 99 — FY 00 — FY 04(02) — FY 05(03) —

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# STRATEGY 3

MCA Construction Of  
New Brigade  
Barracks Complexes



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**1ST BRIGADE BARRACKS--TOTAL COST \$118.6 MILLION PROVIDES  
1 BRIGADE HQ, 3 BATTALION HQS, 16 COMPANY HQS, AND 960  
BARRACKS SPACES--UNDER CONSTRUCTION. COMPLETE SEP 2003**

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**82d SepBns**  
(Start FY 2001)

**82d DISCOM**  
(Complete Jan 98)

**1st Bde**  
(Start FY 1999)

**2d Bde**  
(Start FY 2004)

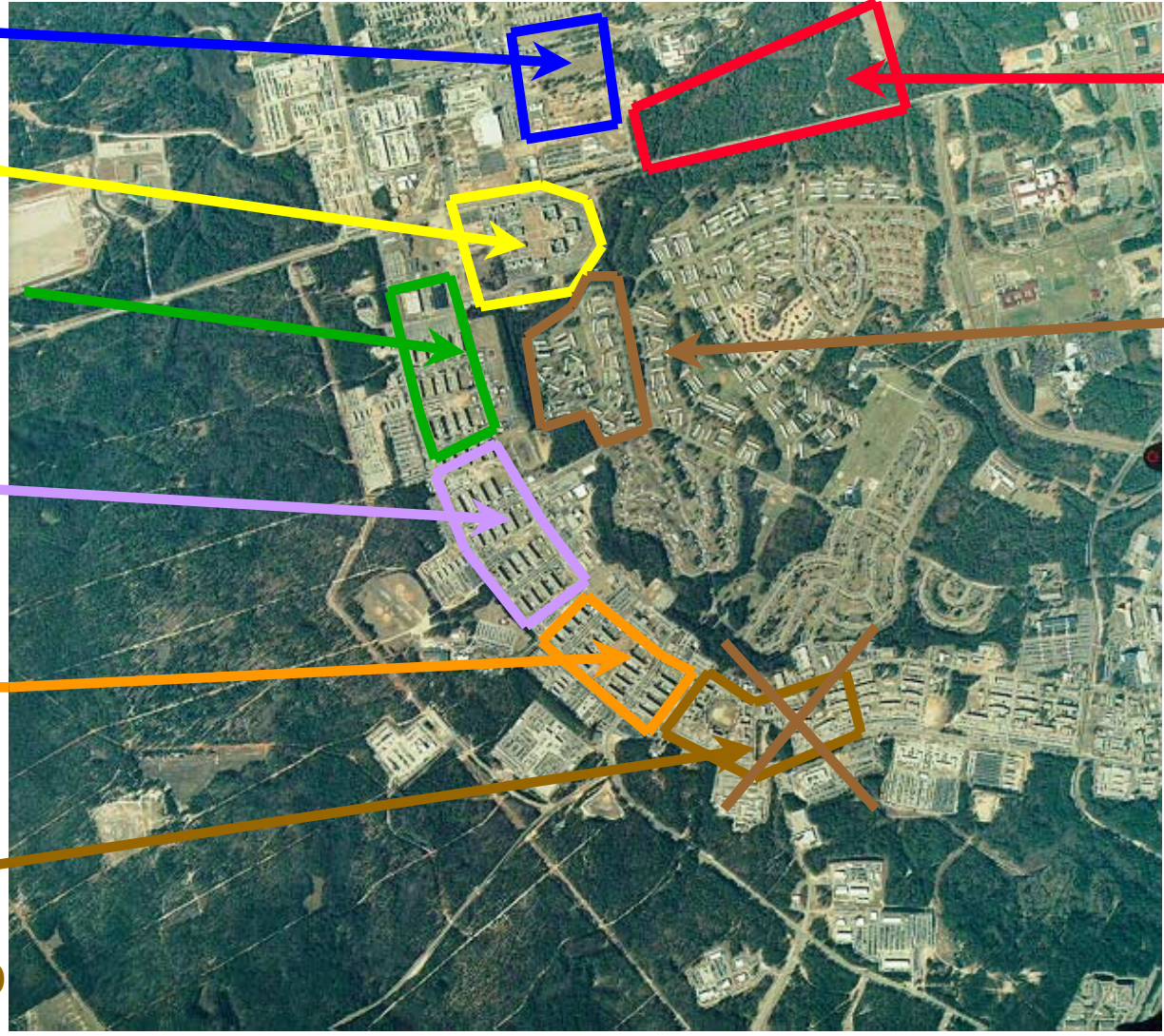
**3d Bde**  
(Start FY 2006)

~~**82d  
DIVARTY**  
(Start FY 2010)~~

**82D CAB**  
(Start FY 2001)

**82d  
DIVARTY**  
(Alternate Site  
To Allow Start Of  
DIVARTY In  
FY 2005)

**REQUIRE-  
MENT=7  
BRIGADE  
COMPLEXES**

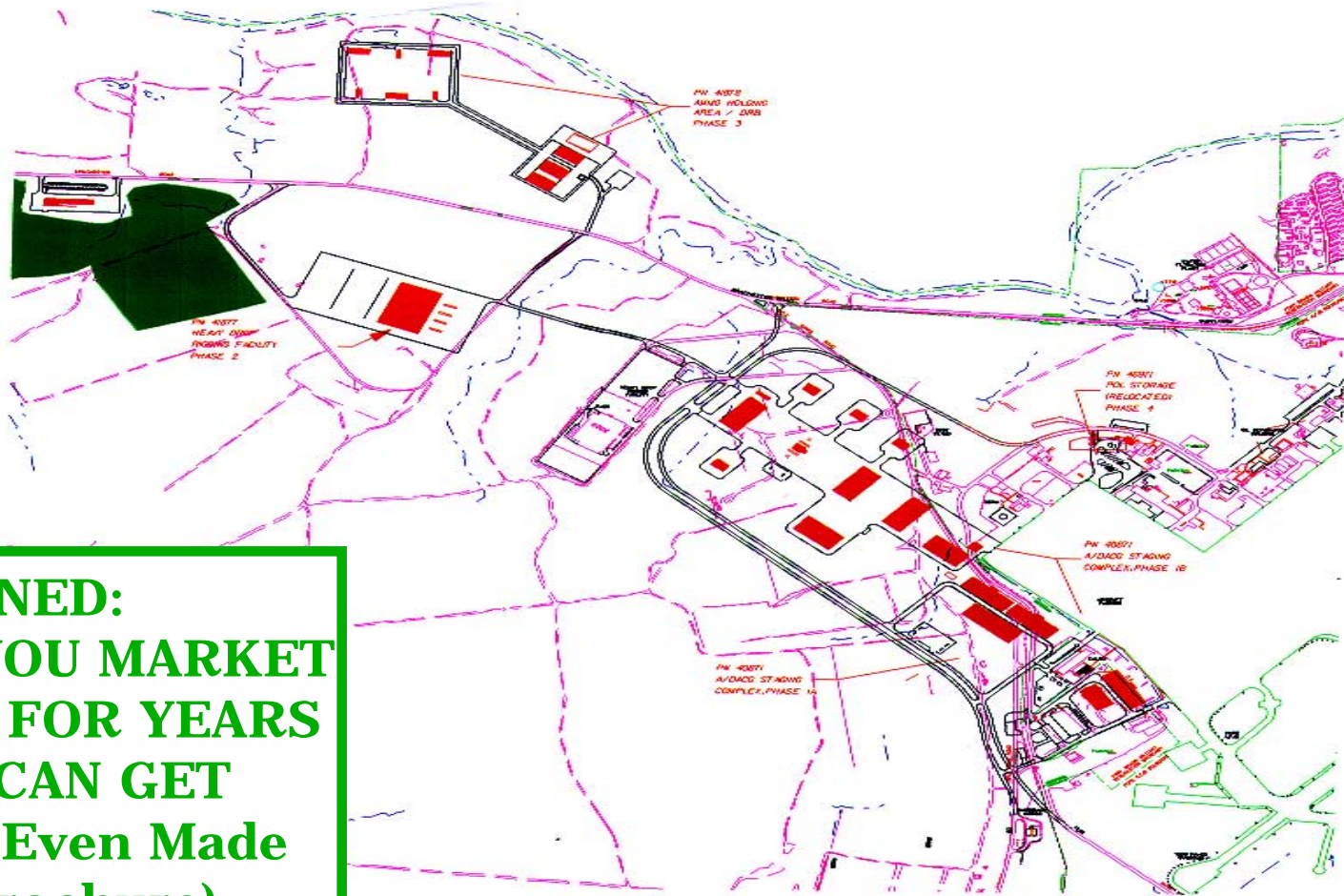
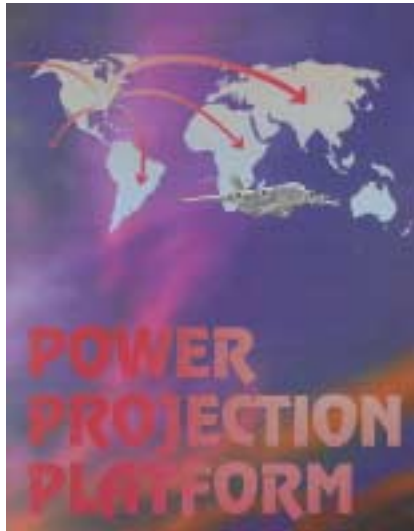


**82d AIRBORNE DIVISION BARRACKS MASTER PLAN**

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# OUTLOAD FACILITIES



**LESSON LEARNED:  
SOMETIMES YOU MARKET  
A GOOD PLAN FOR YEARS  
BEFORE YOU CAN GET  
DOLLARS (We Even Made  
A Marketing Brochure)**

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# OUTLOADING ENHANCEMENT PLAN

| PHASE                | DESCRIPTION  | COST           | YEAR |             |
|----------------------|--|----------------|------|-------------|
| 1a.                  | A/DACG STAGING COMPLEX                             | \$13 M         | 1996 | COMPLETE    |
| 1b.                  | A/DACG STAGING COMPLEX                             | \$23.3M        | 1999 | UNDER CONST |
| 2.                   | HVY DROP RIGGING FAC                               | \$30 M         | 2000 | UNDER CONST |
| 3.                   | AMMUNITION HOLDING AREA                            | \$12.6 M       | 2001 | FUNDED      |
| 4.                   | DANGEROUS CARGO PADS<br>(AIR FORCE FUNDED PROJECT) | \$24.6M        | 2001 | UNDER CONST |
| 5.                   | POL STORAGE COMPLE                                 | \$16.5M        | 2003 |             |
| TOTAL                |  | \$95.4 MILLION |      |             |
| TOTAL WITH AIR FORCE |  | \$120 MILLION  |      |             |



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**A/DACG, Phase 1A—View Of 1000-Soldier Troop Shelter  
Completed In March 99**

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**A/DACG STAGING COMPLEX,  
PHASE 1B  
COST--\$23.3 MILLION  
COMPLETE--AUGUST 2002**

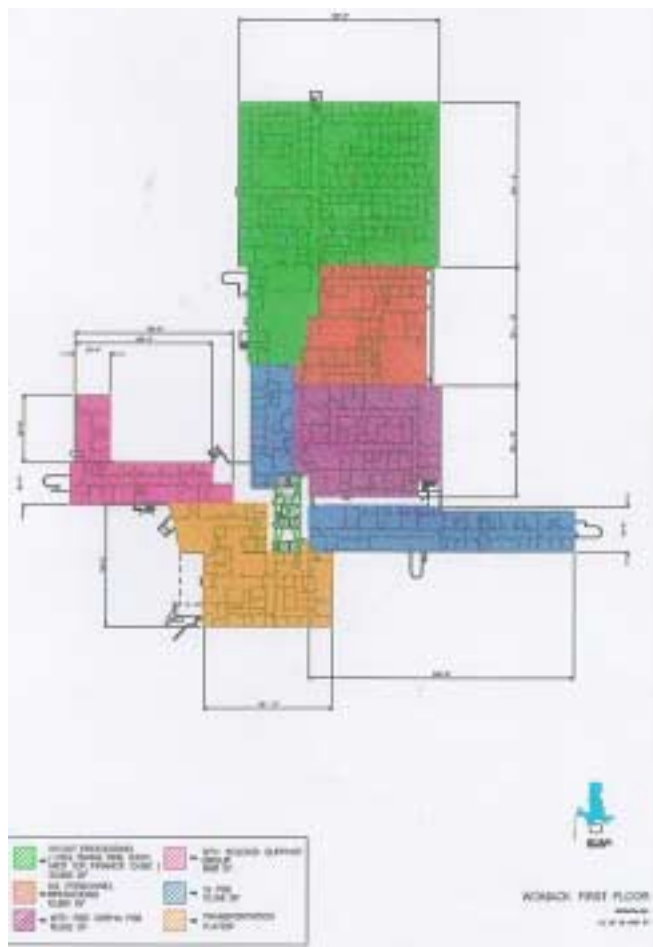


**HEAVY DROP RIGGING FACILITY  
10 LANES. COST--\$30 MILLION  
COMPLETE--APRIL 2002**



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**Reuse of Old Womack**

**LESSON LEARNED: SPACE PLANNING HAS GOT TO BE AN INTEGRAL PART OF THE PLANNING PROCESS**

**SPACE MANAGEMENT**

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# OLD WOMACK--STATUS OF FUNDING

- **COST--ABOUT \$23 MILLION**
- **FY 99 FUNDING:**
  - \$567K--Replace Electrical Switchgear in Basement
  - \$812K--Repair Air Handlers, Duct Work, and Abate Asbestos
- **FY 00 FUNDING:**
  - \$544K--Clinic Infrastructure Repairs (About 80,000 SF)
  - \$490K--Upgrade Communications in the Clinic Portion
  - \$153K--Repair Old Womack Roof
  - \$2,864K--Renovate Womack Basement
  - \$268K--Upgrade Commo in Basement
  - \$29K--Fire Rate Duct Walls in Womack
  - \$1,573K--Renovate 1st Floor
  - \$268K--Upgrade Commo on 1st Floor
- **TOTAL FUNDING TO DATE--\$7,568K**
- **CLINIC PORTION:**
  - Complete--December 2000
  - Will House Soldier In/Out Processing

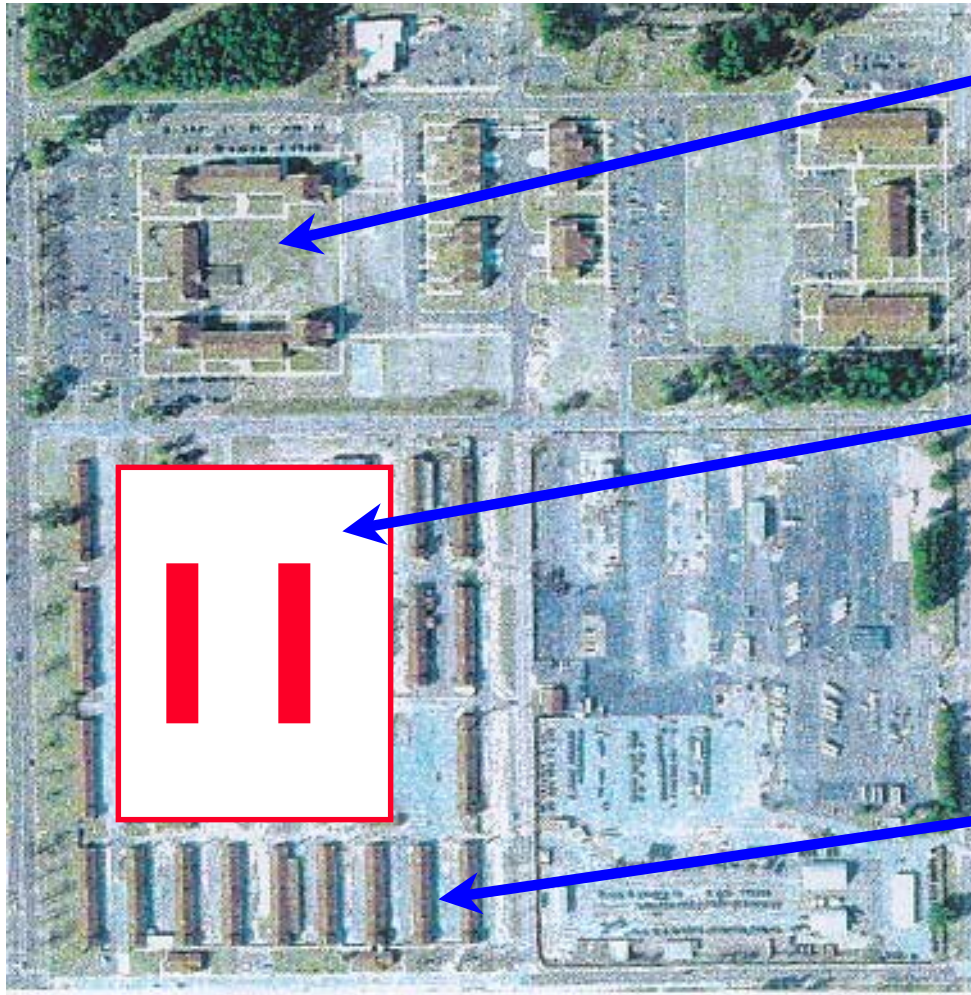


**Most Of Funding To Date  
For Old Womack Has Been  
Facilities Reduction  
Program Dollars—Will  
Demo 86 WWII Buildings**

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## Lesson Learned: Look At Adaptive Reuse



Future 525<sup>th</sup> MI Maint Shop



1935 Mule  
Barn  
Converted  
To  
Community  
Building

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# ISSUE:

Urban  
Encroachment  
At Ste. Mere  
Elgise Drop Zone.  
Lost Ability To  
Drop Heavy  
Equipment at  
This Drop Zone  
Due to Adjacent  
Off-Post Housing.



**LESSON LEARNED: PLANNING IS MORE THAN JUST WHAT'S INSIDE THE FENCE. PLANNING IS WORKING WITH LOCAL PLANNERS OFF POST—DEALING WITH URBAN ENCROACHMENT ISSUES.**

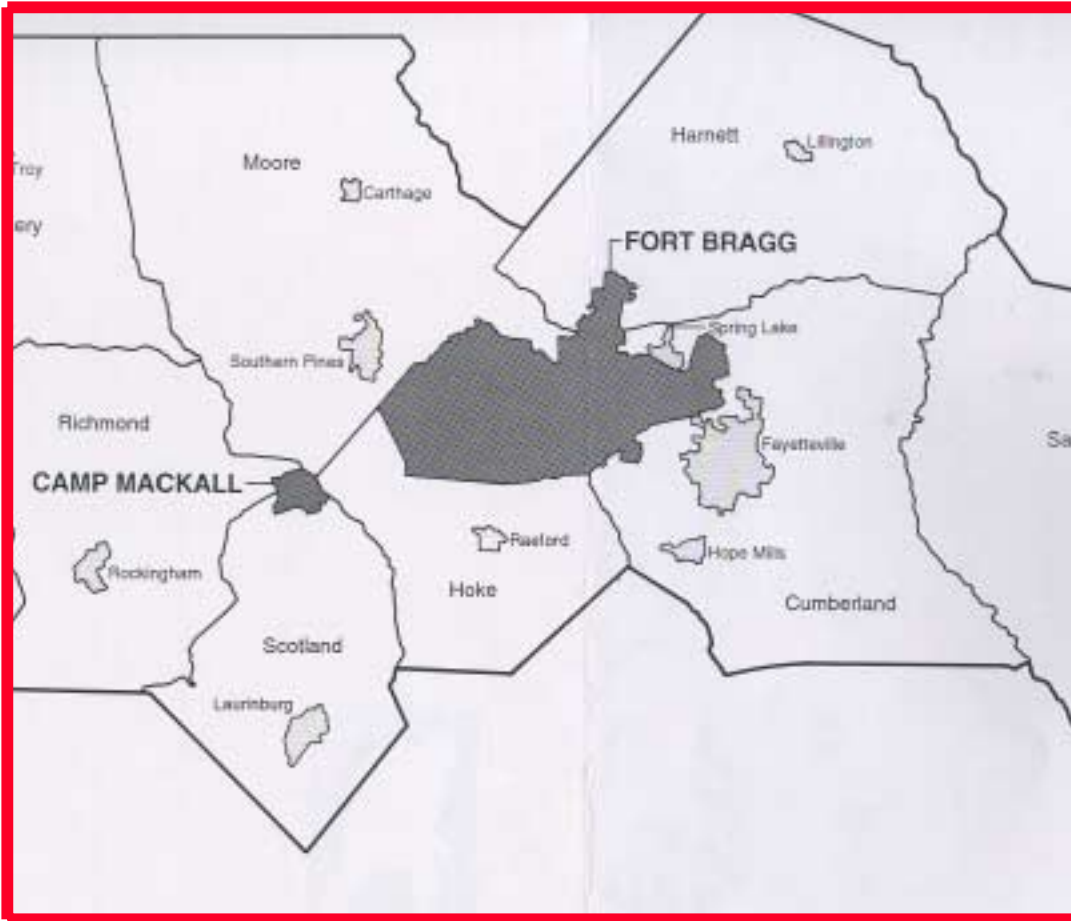
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# FORT BRAGG JLUS--BACKGROUND



**Began Study in 1988**

**First Army Installation to do JLUS**

**First Joint Army/Air Force Study**

**Scope--Involved 9 Counties and 22 Local Governments**

**Cost--\$275K:**

**\$200K--DOD**

**\$50K--North Carolina**

**\$25K--Local Gov'ts**

**PURPOSE:** To Accommodate the Growth and Development of the Region without Compromising the Military Missions of Fort Bragg and Pope Air Force Base.

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# JLUS Studies

- Blue Report (1990): Assessed Military's Positive and Negative Impacts on the Region. Looked at Population, Fiscal, Housing, Economic and Land Use Concerns.

- \$30.3 Million Annually in Net Fiscal Benefits to Local Gov'ts.

- \$1.6 Billion Annually in Regional Economic Impact.

- 23,700 Jobs Generated in Addition to Military and Civilian Jobs On Post.

- Green Report (1991): Recommendations to Local Gov'ts and to Bragg/Pope:

- Concerning Noise Issues (Artillery and Aircraft)

- Concerning Accident Potential

- Concerning Height Obstructions



- Impacts Report (1992): Studied Impacts of Implementing Compatible Land Use Planning in the Bragg/Pope Region:

- Substantial Amounts of Developable Land Available Outside of Noise/Accident Restricted Areas.

- Local Gov'ts have Ability to Direct Intensive Development away from Areas Affected by Military Operations.

- Bragg/Pope do not have Flexibility to Move Operations from Existing Training Areas Without Big Costs.

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## What Have We Done Since Studies Were Complete?

- Established Regional Land Use Advisory Commission.
  - Initial Meeting--16 Jan 92.
  - Met Every 2 Months Until Sep 98--Deactivated.
  - Met Again on 14 Jun 00--Voted to Reactivate Group
- Worked With Surrounding Counties on Land Use Planning
  - Cumberland County--2010 Plan Includes All Noise and Accident Recommendations Targeted for Cumberland County in JLUS Report.

Cumberland County Created 1/2 Mile Special Planning Zone Around Bragg. We Review All Zoning Changes/Subdivision Proposals in This Zone.

- Hoke County--Hoke Land Use Plan Encourages Lower Residential Densities in Sensitive Blast Noise Zones North of US 401.

# Protect Assets

- Simmons is Home to 203 Aircraft Valued at more than \$1.4 Billion.
- Aircraft includes 82 UH-60 Blackhawk Helicopters, 48 AH-64 Apache Attack Helicopters, and 17 CH-47 Chinook Helicopters.
- Invested More than \$60 Million Building 5 New Hangars and Expanding Ramp Space in Late 1980s and Early 1990s.



Simmons Army  
Airfield Runway

Clear Zone

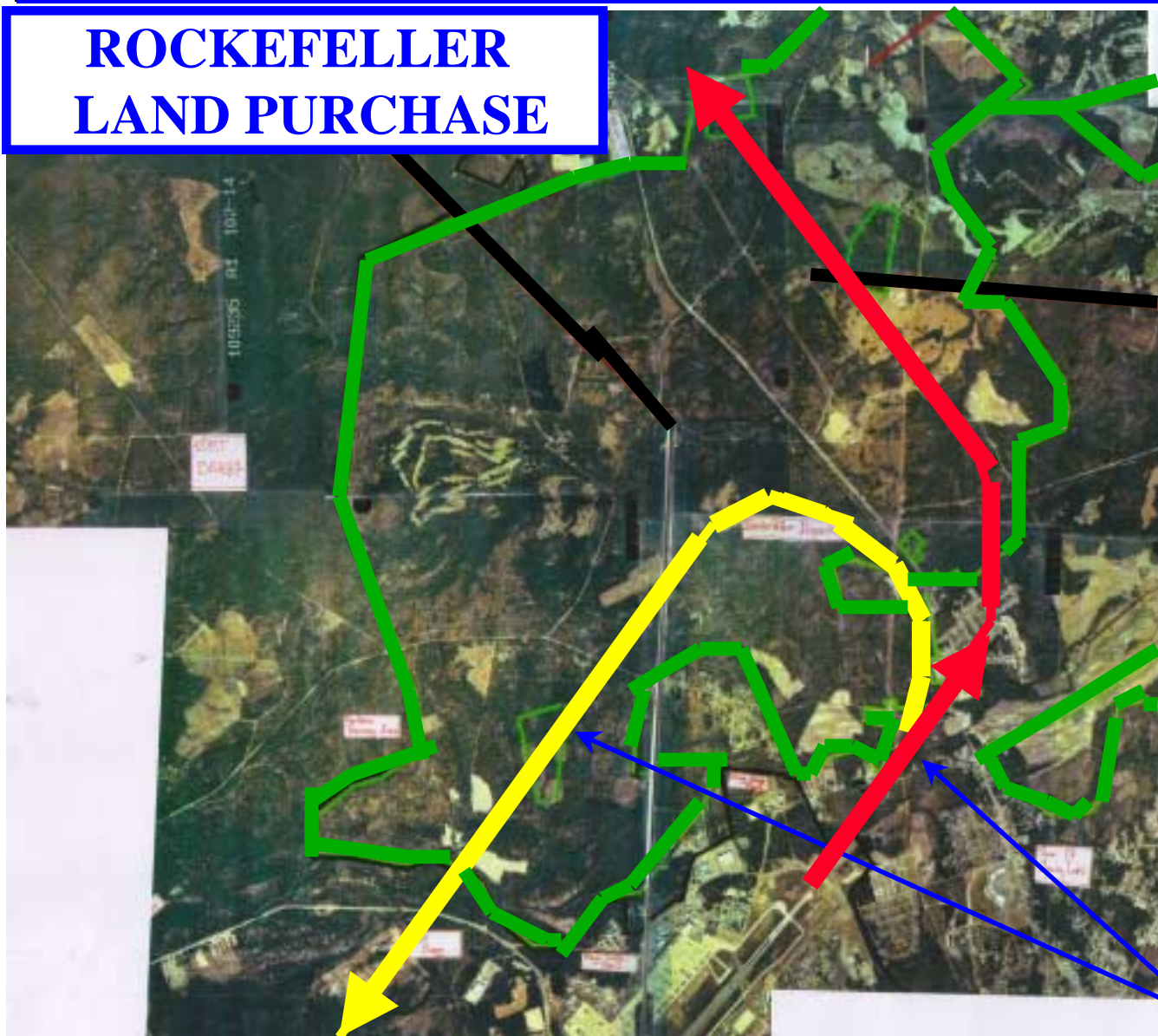
Accident Potential Zone 2--Developer Had Proposed  
87 Units in Zone 2 X 2.6 People = 227 People At Risk

Accident Potential Zone 1

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# ROCKEFELLER LAND PURCHASE



## Protect Assets

### Pope Air Force Base:

- Southwestern end of Runway all falls on Bragg (Protected)
- Northeastern end of Runway:
  - Purchased 10,580-acre Rockefeller Property.
  - Gained some of APZ2 and some Noise Contours
  - Protects Key Flight Tracks

— Boundary Of Acquired Rockefeller Property

— Closed Flight Tracks

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# Encroachment Is More Than Just Noise and Accident Potential Issues:



Saint Francis'  
Satyr



Red-cockaded  
Woodpecker



American  
Chaffseed



Michaux's Sumac



Rough-Leaf  
Loosestrife

Endangered  
Species

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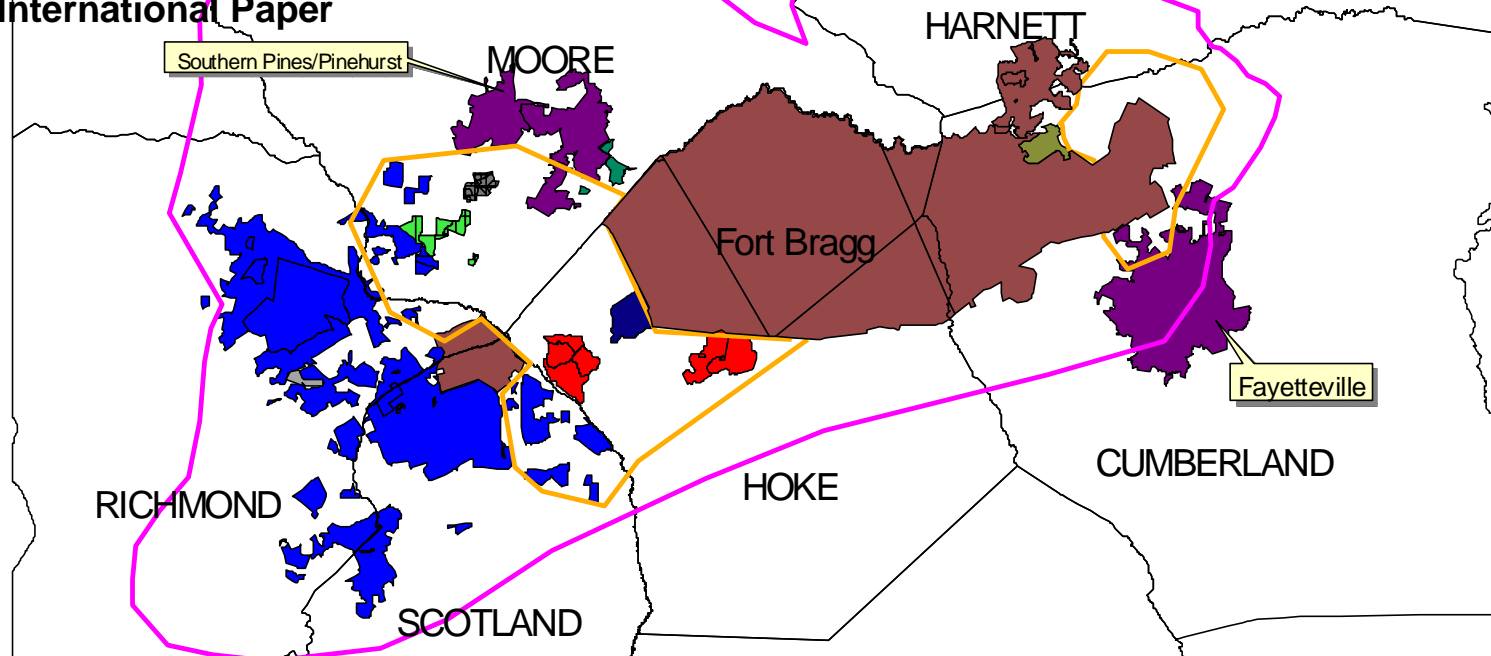
# ENCROACHMENT...

- Encroachment Impacts Our Land Management Flexibility (Adjacent Homeowners Vocally Complain about Controlled Burning)
- Encroachment Impacts Our Ability to Recover Endangered Species (As Off Post Habitat is Destroyed--Entire Recovery Burden Falls on Installations)

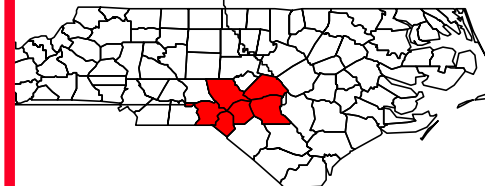


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-  Military Lands
-  State Lands
-  Conservation Priorities
-  International Paper



- Work With US Fish and Wildlife Service To Create A Sandhills GIS Data Repository With Mapping/Aerial Photo Data
- USFWS May Develop A Wildlife Refuge



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An aerial photograph of a landscape, likely a wetland or marsh area, with a green boundary line and a red boundary line. Two blue arrows point towards the center of the image. The image is overlaid with a grid of coordinates, including labels like 109235, 109236, 109237, 109238, 109239, 109240, 109241, 109242, 109243, 109244, 109245, 109246, 109247, 109248, 109249, 109250, 109251, 109252, 109253, 109254, 109255, 109256, 109257, 109258, 109259, 109260, 109261, 109262, 109263, 109264, 109265, 109266, 109267, 109268, 109269, 109270, 109271, 109272, 109273, 109274, 109275, 109276, 109277, 109278, 109279, 109280, 109281, 109282, 109283, 109284, 109285, 109286, 109287, 109288, 109289, 109290, 109291, 109292, 109293, 109294, 109295, 109296, 109297, 109298, 109299, 109300, 109301, 109302, 109303, 109304, 109305, 109306, 109307, 109308, 109309, 109310, 109311, 109312, 109313, 109314, 109315, 109316, 109317, 109318, 109319, 109320, 109321, 109322, 109323, 109324, 109325, 109326, 109327, 109328, 109329, 109330, 109331, 109332, 109333, 109334, 109335, 109336, 109337, 109338, 109339, 109340, 109341, 109342, 109343, 109344, 109345, 109346, 109347, 109348, 109349, 109350, 109351, 109352, 109353, 109354, 109355, 109356, 109357, 109358, 109359, 109360, 109361, 109362, 109363, 109364, 109365, 109366, 109367, 109368, 109369, 109370, 109371, 109372, 109373, 109374, 109375, 109376, 109377, 109378, 109379, 109380, 109381, 109382, 109383, 109384, 109385, 109386, 109387, 109388, 109389, 109390, 109391, 109392, 109393, 109394, 109395, 109396, 109397, 109398, 109399, 109400, 109401, 109402, 109403, 109404, 109405, 109406, 109407, 109408, 109409, 109410, 109411, 109412, 109413, 109414, 109415, 109416, 109417, 109418, 109419, 109420, 109421, 109422, 109423, 109424, 109425, 109426, 109427, 109428, 109429, 109430, 109431, 109432, 109433, 109434, 109435, 109436, 109437, 109438, 109439, 109440, 109441, 109442, 109443, 109444, 109445, 109446, 109447, 109448, 109449, 109450, 109451, 109452, 109453, 109454, 109455, 109456, 109457, 109458, 109459, 109460, 109461, 109462, 109463, 109464, 109465, 109466, 109467, 109468, 109469, 109470, 109471, 109472, 109473, 109474, 109475, 109476, 109477, 109478, 109479, 109480, 109481, 109482, 109483, 109484, 109485, 109486, 109487, 109488, 109489, 109490, 109491, 109492, 109493, 109494, 109495, 109496, 109497, 109498, 109499, 109500, 109501, 109502, 109503, 109504, 109505, 109506, 109507, 109508, 109509, 109510, 109511, 109512, 109513, 109514, 109515, 109516, 109517, 109518, 109519, 109520, 109521, 109522, 109523, 109524, 109525, 109526, 109527, 109528, 109529, 109530, 109531, 109532, 109533, 109534, 109535, 109536, 109537, 109538, 109539, 109540, 109541, 109542, 109543, 109544, 109545, 109546, 109547, 109548, 109549, 109550, 109551, 109552, 109553, 109554, 109555, 109556, 109557, 109558, 109559, 109560, 109561, 109562, 109563, 109564, 109565, 109566, 109567, 109568, 109569, 109570, 109571, 109572, 109573, 109574, 109575, 109576, 109577, 109578, 109579, 109580, 109581, 109582, 109583, 109584, 109585, 109586, 109587, 109588, 109589, 109590, 109591, 109592, 109593, 109594, 109595, 109596, 109597, 109598, 109599, 109600, 109601, 109602, 109603, 109604, 109605, 109606, 109607, 109608, 109609, 109610, 109611, 109612, 109613, 109614, 109615, 109616, 109617, 109618, 109619, 109620, 109621, 109622, 109623, 109624, 109625, 109626, 109627, 109628, 109629, 109630, 109631, 109632, 109633, 109634, 109635, 109636, 109637, 109638, 109639, 109640, 109641, 109642, 109643, 109644, 109645, 109646, 109647, 109648, 109649, 109650, 109651, 109652, 109653, 109654, 109655, 109656, 109657, 109658, 109659, 109660, 109661, 109662, 109663, 109664, 109665, 109666, 109667, 109668, 109669, 109670, 109671, 109672, 109673, 109674, 109675, 109676, 109677, 109678, 109679, 109680, 109681, 109682, 109683, 109684, 109685, 109686, 109687, 109688, 109689, 109690, 109691, 109692, 109693, 109694, 109695, 109696, 109697, 109698, 109699, 109700, 109701, 109702, 109703, 109704, 109705, 109706, 109707, 109708, 109709, 109710, 109711, 109712, 109713, 109714, 109715, 109716, 109717, 109718, 109719, 109720, 109721, 109722, 109723, 109724, 109725, 109726, 109727, 109728, 109729, 109730, 109731, 109732, 109733, 109734, 109

**Clark Property:  
Purchased By The  
Nature Conservancy  
For \$5.276 Million.  
(1,172.5 Acres)  
4 Colonies of RCWs**

# XVIII AIRBORNE CORPS



**LESSON LEARNED: FOCUS ON  
SOLUTIONS—NOT PROBLEMS.**

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